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NEW GECKOS OF THE GENERA *AFROEDURA*, NEW GENUS, AND *PACHYDACTYLUS* FROM ANGOLA

BY ARTHUR LOVERIDGE[1]

Recently when I was on a visit to New York, Mr. Charles M. Bogert invited my attention to two Angolan geckos secured by the Vernay Angola Expedition that he had reason to believe were new. As I was then engaged on revisionary studies of African Gekkonidae, Mr. Bogert, with characteristic generosity, suggested that I should describe them and placed at my disposal the remarkably fine drawing of one already prepared. I was glad to accept his offer, for it provides me with the opportunity to associate his name with the most northerly African record of a genus, hitherto regarded as congeneric with the Australian *Oedura* of Gray, 1842, but which may be known as:

AFROEDURA, NEW GENUS

GENOTYPE: *Afroedura karroica bogerti*, new subspecies.

DIAGNOSIS: African geckos, previously referred to the Australian genus *Oedura*, form a fairly homogeneous group which may be distinguished as follows:

One to three pairs of scansors beneath fourth toe; tail verticillate (not noticeably so in *pondolia*); range: southern Africa ..... *Afroedura*

Four or more pairs of scansors beneath fourth toe; tail not verticillate; range: Australia ..... *Oedura*

The term "scansors" is here proposed for those specialized subdigital scales which have sometimes been referred to as "adhesive lamellae," but frequently as just "lamellae," resulting in confusion with the simple lamellae beneath the basal portion of the digit.

[1] Museum of Comparative Zoölogy, Harvard College.

In its tail, *A. p. pondolia* (Hewitt) of Natal most nearly approaches the non-verticillate, swollen-tailed Australian *Oedura* (*lesseurii*, *marmorata*, *rhombifera*, and *robusta* examined), for to the unaided eye the verticils of *pondolia* are indistinct.

DESCRIPTION: Digits free, moderate, dilated throughout, with raised distal joint bearing a slightly larger discoid dilation at apex, covered above with scales, not denticulate laterally, below on basal portion by scales or transversely dilated lamellae and one to two pairs of scansors slightly separated from another pair on the distal dilation, clawed, the claw retractile between the distal scansors.

RANGE: Africa south of the Cuanza River (i.e., 8° south latitude) in the west, and the Zambezi (i.e., 15° south latitude) in the east.

Afroedura karroica bogerti, new subspecies

HOLOTYPE: A.M.N.H. No. 47841, an adult male from Namba (Mombolo), Cuanza Sul Province, Angola, collected by Harry and Allan Chapman, between September and November, 1925.

DIAGNOSIS: Mostly nearly related to *A. k. halli* (Hewitt) of the Orange Free State, Basutoland, and Cape Province north of 32° south latitude, whose nearest record is about 1500 miles distant from Namba. From *A. k. halli* and *A. k. karroica* (Hewitt), with which I would synonymize *A. k. wilmoti* (Hewitt), the new race may be distinguished as follows:

1. Nasals in contact behind rostral; male with four (? six to seven) preanal pores; tail strongly depressed, oval in section with angular lateral

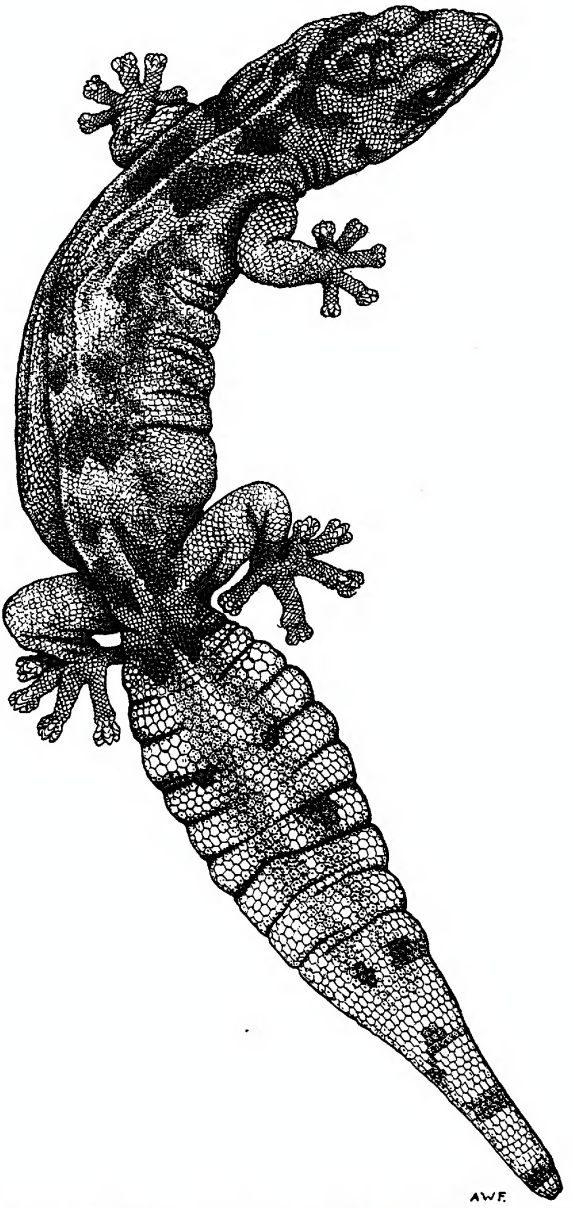

Fig. 1. *Afroedura karroica bogerti*, new subspecies. Male type (A.M.N.H. No. 47841, x 2) from Namba, Angola. (Too many granules are indicated between the supranasals. Actually only a single large granule separates these scales.)

edges; range: mountains of south-central Cape Province, south of 32° south latitude.....*k. karroica*

Nasals separated by a granule; male with eight preanal pores; tail depressed but thicker and with broadly rounded edges; range: north of 32° south latitude.....2

2. Dorsal granulation finer (granules and ventrals round midbody number about 90); greatest width of tail 20 per cent the length of head and body, the tail width (6 mm.) being included 1.5 times in the width of the body (9 mm.); range: mountains of eastern Cape Province, Basuto-

land, and Orange Free State, north of 32° south latitude.....*k. halli*

Dorsal granulation coarser (granules and ventrals round midbody number about 75); greatest width of tail 13 per cent the length of head and body, the tail width (10 mm.) being included 1.3 times in the width of the body (13 mm.); range: east-central Angola.....*k. bogerti*

DESCRIPTION: Nostril between first labial and three nasals, the anterior largest and separated from its fellow by a single granule; both upper and lower labials eight; tail strongly segmented, each caudal verticil composed of five scales above and four below: male with eight preanal pores forming a slightly angular series. In other respects in agreement with the typical form.

COLOR: Above, grayish; back with five or six obsolescent, irregularly W-shaped brown crossbars; limbs and tail immaculate. Below, whitish, uniform. Apparently a very old gecko; in young specimens of this genus there is a more sharply defined pattern.

SIZE: Length of head and body, 50 mm.; length of tail, 42+ mm., the tip being missing; greatest width of tail, 10 mm.

REMARKS: For comparative purposes only, a male *k. halli* and four females *k. karroica* (paratypes of *k. wilmoti*) are available; however, in other species of the genus where both sexes are represented, no sexual dimorphism as regards tail proportions is to be seen.

Pachydactylus scutatus angolensis, new subspecies

HOLOTYPE: A.M.N.H. No. 47874, an adult male from Hanha, Benguela Province, Angola, collected by Arthur Vernay, Herbert Lang, and Rudyerd Boulton, May 17, 1925.

PARATYPES: A.M.N.H. No. 47872, a gravid female from Lobito Bay, Angola, collected by Herbert Lang, April 24, 1925, and Museum of Comparative Zoölogy, No. 46856, a male with same data as type, but collected May 13, 1925.

DIAGNOSIS: Most nearly related to *P. s. scutatus* Hewitt, which that author considered allied to *P. montanus* Methuen and Hewitt, but which appears to be, in reality, a further development of the scaly-backed *P. p. punctatus* Peters. In *P. s. scutatus* the keeled scales covering almost the entire back are called tubercles by Fitz-Simons in his description of *robertsi*, here relegated to subspecific rank. Either designation is equally applicable, for within this genus the gradations from granule to scale and from scale to tubercle almost defy distinctive definition.

From its nearest allies the new race may be distinguished as follows:

1. Rostral, as well as first labial and three scales, bordering the nostril; range: Damaraland, South-West Africa.....*s. scutatus*

   Rostral excluded from bordering the nostril.

2. First labial and three scales bordering the nostril; range: Great Namaqualand, South-West Africa.....*s. robertsi*

   First labial excluded from bordering the nostril which is surrounded by three scales only; range: Benguela Province, Angola.....*s. angolensis*

DESCRIPTION: Snout acuminate, slightly convex; ear-opening moderate, subcircular or vertically or horizontally oval; granules on snout flattened, smooth, much larger than those on occiput, which are intermixed with a few enlarged tubercles; mental as broad as, or slightly narrower than, adjacent labials; gulars minute, granular, juxtaposed.

Back, except for a narrow vertebral strip where the scales are small, almost entirely covered with large, strongly keeled, juxtaposed or imbricate scales (tubercles) among which occasional smaller ones may be scattered; flanks with smaller keeled scales; ventral scales smaller than dorsal, those in middle subequal to those toward sides, imbricate; limbs short, the adpressed hind limb reaching the wrist; digits long, slender, scarcely more strongly dilated at apex than at base, inferiorly with subdigital

scansors, four (three to four in paratypes) under the first toe, five under the fourth, followed by transversely enlarged lamellae, five under the first toe, nine (eight to ten in paratypes) under the fourth; tail subcylindrical, tapering, covered above with small, smooth, or obtusely keeled scales, below with irregular, smooth, imbricate scales of which the median series is distinctly enlarged; on either side of base of tail in both sexes is a row of three white, flattened, pointed tubercles, with a smaller one below; tail at least as long as head and body.

COLOR: Above, grayish to reddish brown; a dark brown streak from nostril passes through eye to above ear-opening; crown of head almost uniformly pale; limbs more or less uniform; back with scattered white spots (which tend to form narrow transverse lines in one paratype); tail uniformly pale gray. Below, whitish, uniform.

SIZE: Length of head and body in male type, 35 mm.; length of tail, 33+ mm., being incomplete. Length of head and body in female paratype, 42 mm., tail missing.

REMARKS: Within the genus *Pachydactylus* the character cited in the diagnosis is unstable in some members of the genus, stable in others. As it holds for all three Angolan geckos, I prefer not to cite other minor differences which may prove inconstant when series of *s. scutatus* (described from an adult and juvenile) and *s. robertsi* (known only from the holotype) become available.

In view of the variability displayed by the three *s. angolensis* in which the dorsum may be covered exclusively by large keeled scales (apart from the narrow vertebral strip) or with a few small, scattered scales and granules interspersed among the larger ones, I do not think specific importance can be attached to the fact that there were none in *s. scutatus* and only a very few in *s. robertsi*.